

## SUBJECT TEACHING GUIDE

### G860 - Fluid Mechanics

### Degree in Electrical Engineering

Academic year 2024-2025

1. IDENTIFYING DATA					
Degree	Degree in Electrical Engineering			Type and Year	Compulsory. Year 2
Faculty	School of Industrial Engineering and Telecommunications				
Discipline	Subject Area: Thermofluid Mechanics Module in Common with the Industrial Branch				
Course unit title and code	G860 - Fluid Mechanics				
Number of ECTS credits allocated	6	Term	Semester based (2)		
Web					
Language of instruction	Spanish	English Friendly	No	Mode of delivery	Face-to-face

Department	DPTO. INGENIERIA ELECTRICA Y ENERGETICA				
Name of lecturer	SEVERIANO FIDENCIO PEREZ REMESAL				
E-mail	severiano.perez@unican.es				
Office	E.T.S. de Ingenieros Industriales y de Telecomunicación. Planta: - 3. DESPACHO PROFESOR (S3026)				
Other lecturers	JORGE TOMAS CUELI LOPEZ JOSE SALMON GARCIA				

### 3.1 LEARNING OUTCOMES

- Students will be able to apply the concepts of fluid mechanics necessary to carry out engineering projects
- It will be able to apply the concepts of fluid mechanics necessary for the design and improvement of hydraulic machinery

### 4. OBJECTIVES

- Acquiring knowledge of the fundamentals of fluid mechanics to solve technical problems
- Apply the theoretical basis of fluid mechanics to hydraulic machines
- Knows the operating principles, structure and use of hydraulic machines

6. SUBJECT PROGRAM	
CONTENTS	
1	Introduction to fluid mechanics hydrostatic Kinematics and Dynamics of fluids Calculation of pipes and channels External flow, Water hammer and cavitation

7. ASSESSMENT METHODS AND CRITERIA				
Description	Type	Final Eval.	Reassessn	%
Follow-up tests	Written exam	No	Yes	10,00
Laboratory practices	Others	No	Yes	30,00
Examination of practical theoretical contents of the subject	Written exam	Yes	Yes	60,00
<b>TOTAL</b>				<b>100,00</b>
Observations				
<p>Students who renounce continuous assessment can make up the subject in the ordinary and extraordinary exam sessions (theory, problems and laboratory exam).</p> <p>The remote evaluation of the works, practical laboratory exercises and written tests is foreseen, in the case of a new health alert by COVID-19 making it impossible to carry out the evaluation in person.</p> <p>No grade earned for subsequent courses is saved.</p> <p>It is expected that in the event that the health and / or educational authorities do not allow the final exam of the subject in person, this will be done through the Moodle platform. To do this, students must have a computer and internet connection on the day of the exam.</p>				
Observations for part-time students				
Part-time students who do not attend classes will be assessed for the entire subject in ordinary and extraordinary calls (theory, problems and laboratory exam)				

8. BIBLIOGRAPHY AND TEACHING MATERIALS
<b>BASIC</b>
Mecánica de Fluidos y Máquinas Hidráulicas; Claudio Mataix; Ed. Oxford
Ingeniería Fuidomecánica; N. Garcia Tapia; Universidad de Valladolid
Mecánica de Fluidos e Hidráulica; R.V. Giles; Ed. McGrawhill
Mecánica de Fluidos Aplicada; R. Mott; Ed. Prentice Hall
Mecánica de Fluidos; A. Crespo; Ed. Thomson
Mecánica de Fluidos; F. White; Ed. McGrawhill